ENGINEERING REPORT

Equipment Performance Measurements

Testing was conducted October 17, 2019 to verify compliance with FCC Rule 73.44 at Radio Station KFOR, 1240 kHz, Lincoln, NE. Measurements were collected at a location approximately 1 kM from the antenna using equipment described below. The transmitter was operating at the prescribed 1 kW power level, and was being modulated with normal program material at the time of measurement. Field Intensity at the point of observation: 330 mv/m.

Emission close to the carrier was observed on an RF Spectrum Analyzer of the proper characteristics in the peak hold mode, using a loop antenna to receive the signal. The levels of the fundamental, second, third, and fourth harmonics were measured with a Field Intensity Meter. Spurious emission beyond 75 kHz from the carrier was also checked by observing the analyzer and scanning through the 13th harmonic of the fundamental using a communications receiver and loop antenna. The images observed on the Spectrum Analyzer were captured using the internal memory of the instrument and appear on pages 2 and 3 of this report.

The loop antenna was oriented to reduce AC power line interference as much as possible.

A tabulation of harmonic measurements and plots of spectrum analyzer displays follow.

Engineer Daniel E Cross Date 1/27/2020

LIST OF EQUIPMENT

ANRITSU Model MS2712E Spectrum Analyzer, serial no. 0950163. Calibrated April 5, 2013

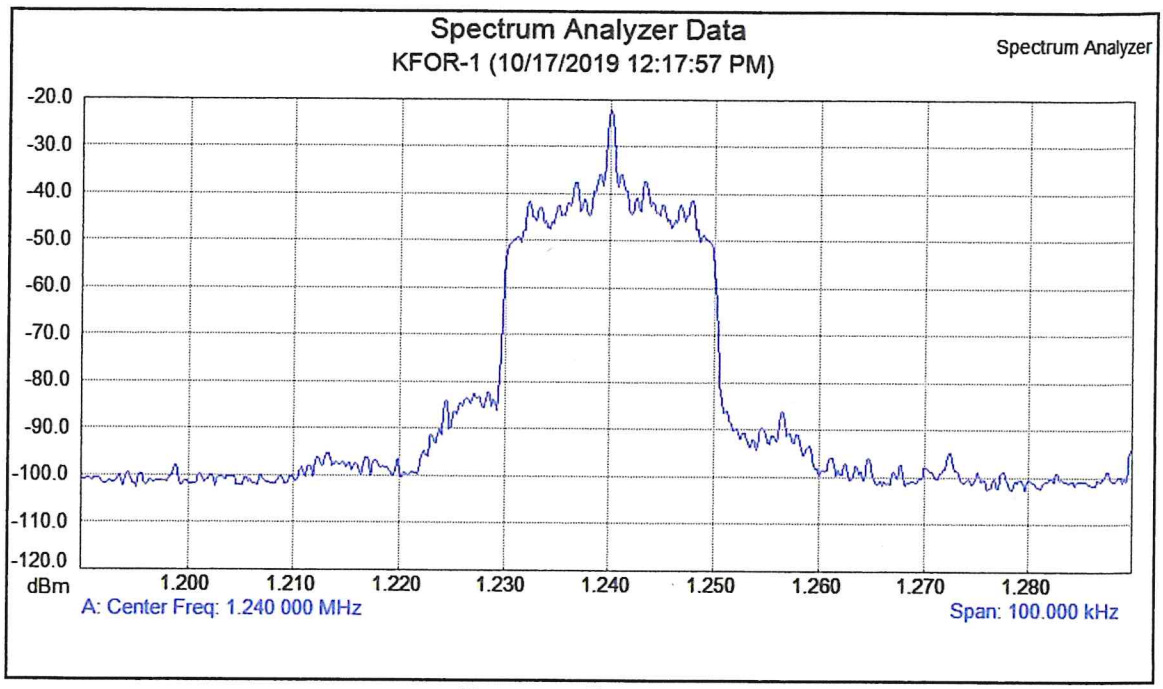
POTOMAC INSTRUMENTS Model PI4100 Field Intensity Meter, serial no. 161. Last calibration: Feb 12, 2009. Field checked December 8, 2014.

YAESU Model FRG-100 Communications Receiver, serial no. 3L120305. Last calibration: June, 1993.

SPURIOUS EMISSION

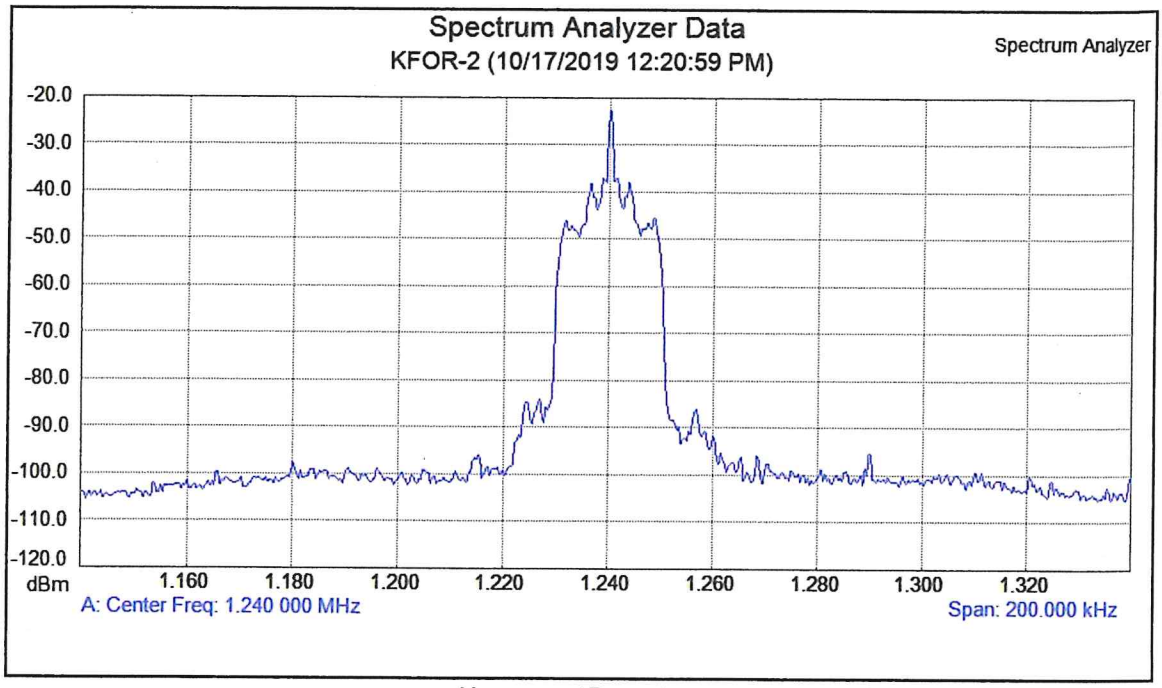
Frequency	Signal	Time
1240 kHz	330 mv/m	13:18
2480 kHz	>-80.0 dbc	13:19
3720 kHz	>-80.0 dbc	13:19
4960 kHz	>-80.0 dbc	13:20

4th -13th harmonics were not detectable



Measurement Parameters

		Stop Frequency	1.290 000 MHz
Trace Mode	Max Hold	Frequency Span	100.000 000 kHz
Preamp	OFF	Reference Level	-20.000 dBm
Min Sweep Time	0.001 S	Scale	10.0 dB/div
Reference Level Offset	0 dB	Serial Number	950163
Input Attenuation	0.0 dB	Base Ver.	V4.47
RBW	300.0 Hz	App Ver.	V5.93
VBW	300.0 Hz	Model	MS2712E
Detection	Peak	Options	10, 31
Center Frequency	1.240 000 MHz	Date	10/17/2019 12:17:57 PM
Start Frequency	1.190 000 MHz	Device Name	



Measurement Parameters

		Stop Frequency	1.340 000 MHz
Trace Mode	Max Hold	Frequency Span	200.000 000 kHz
Preamp	OFF	Reference Level	-20.000 dBm
Min Sweep Time	0.001 S	Scale	10.0 dB/div
Reference Level Offset	0 dB	Serial Number	950163
Input Attenuation	0.0 dB	Base Ver.	V4.47
RBW	300.0 Hz	App Ver.	V5.93
VBW	300.0 Hz	Model	MS2712E
Detection	Peak	Options	10, 31
Center Frequency	1.240 000 MHz	Date	10/17/2019 12:20:59 PM
Start Frequency	1.140 000 MHz	Device Name	